Progress Report

Production of Fresh Cut Flowers in Virginia

FY07 Virginia Department of Agriculture and Consumer Services
Specialty Agriculture Research Grant

submitted by:

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Cooperating Landowners

A research and demonstration program concerning production and marketing of fresh cut flowers began on October 10, 2006 at Virginia State University. With the help of several Agriculture Extension Agents, I recruited twelve landowners from each region of Virginia to plant and maintain field demonstrations in commercial production of fresh cut flowers. There was a great deal of variation among these twelve landowners in their farming experience and specifically in their flower farming experience. A few of these farmers had grown and sold cut flowers in the past but most had not. None of the participants had well established cut flower farming operations. Their farms varied in size from 800 acres to a ½ acre lot.

Dana Boyle, a commercial vegetable grower in Westmoreland County, planted her annual cut flowers on plastic with trickle irrigation, as she does annual vegetable crops.

There is a great deal of variation among these twelve landowners in their proximity to markets and buyers of fresh cut flowers. The cooperating grower located in Purcellville in Loudoun County can sell her flowers in numerous farmers markets, directly to restaurant owners, directly to florist shops or to several wholesale flower buyers in the Washington D. C. area. Marketing channels available to her are almost unlimited. The cooperating grower located in Ridgeway in Henry County has less marketing opportunities. She can travel 25 miles to Martinsville or 70 miles to Roanoke or 50 miles to either Greensboro or Winston-Salem, North Carolina. Local direct marketing opportunities for her are limited. The other growers, participating in the project, fall somewhere between these two extremes.

Brian Watson, the cooperating grower in Hanover County, cutting Dutch Iris.

There was also great variation among these twelve growers in the amount of time they had to give to the demonstration. This has made the greatest difference in the growth of the flower crops, appearance of the demonstration sites and progress in marketing. Five of the participants are commercial farmers who manage enterprises that require a great amount of time and attention. A couple of participants own and operate businesses which require their full attention during the work week. They attempted to take care of the flower project on nights and weekends. Taking care of this cut flowers demonstration was the primary occupation and daily activity for three of the participants. These three demonstrators are the only persons who do not have any weeds in their plots.

Fall Planting

Using funds provided by the VDACS Specialty Agriculture Research Grant, I ordered Dutch Iris bulbs, daffodil bulbs, Asiatic lily bulbs and peony rhizomes for fall planting in October and November of 2006. Each participant received one hundred peony rhizomes, two hundred daffodils, two hundred Dutch iris and six hundred Asiatic lily bulbs. I provided each grower with a roll of woven plastic weed barrier that was 12 feet wide and 300 feet long to provide weed control for the peonies and for the lilies. I did quite a bit of driving in November of 2006 to deliver these planting materials to the twelve different locations. All of the cooperating growers planted these fall crops very well. None of them had ever used the woven plastic weed barrier before. This material provided an early learning experience. If the weed barrier is not securely anchored, strong winds can blow it up off of the planted crops. This happened to several of the growers. Most of them have now learned how to anchor this material but one man gave up on it, saying that it could not possibly stay in place, in the field, in his windy location.

Woven plastic barrier blocks weeds, conserves soil moisture and lasts for 8 years.

Asiatic Lilies Fail

Virginia florists purchase large volumes of lilies throughout the year

The only real crop failure in the project occurred in January of 2007. Each grower planted 500 lilies in November of 2006. In most of the locations, the daytime air temperature rose to 75 degrees F in the second week of January. These unseasonably warm temperatures caused the Asiatic lilies to sprout and start growing. In several sites the lilies grew almost ten inches tall before normal January weather returned. When the temperatures fell to 20 degrees F, those early sprouting lilies froze. The green tops died and the crop was lost. The bulbs did not send up new sprouts in April when warm days of spring arrived.

This loss of the Asiatic lilies in the project was my fault. I purchased pre-chilled Asiatic lily bulbs. The bulb company did not tell me they were pre-chilled for greenhouse growing conditions but I should have asked. If the bulbs had not been pre-chilled, they would not have sent up green growing sprouts in the middle of the winter. Most of the growers planted annuals like zinnias and dianthus, in the areas where the lilies died, in May of 2007.

Spring Planting

In April of 2007, I delivered flats of snapdragons, dianthus, hydrangea, lilac and deciduous holly to each participant in the program. Each person also received 450 gladiolus bulbs, two ounces of sunflower seeds and four large packs of zinnia seeds. I also carried each landowner another 12 foot by 300 foot roll of the woven plastic weed barrier, hoping this material would reduce labor expended in weed control. The hydrangea, lilac and deciduous hollies are considered to be “woody stem” cut flower plants. It was interesting to observe the reactions of these new growers to the woody stem plants and to the other perennial species in this project. It may take five years before the woody species grow big enough to harvest. The peonies will take at least three years to come into production. Participants in the program who are vegetable growers are highly accustomed to annuals like sweet corn and tomatoes which can be harvested for profit after a short period of vegetative growth. Most of the growers in the program did a good job taking care of the perennial plants but the vegetable farmers seemed to resent the slow development of the perennials more than the others.

Each participating grower planted about 100 peony rhizomes in the fall of 2006. These plants will not come into full production until 2010.

Each grower planted seven different varieties of gladiolus bulbs.

All of the growers had success in both growing and selling Rocket snapdragons.

Lona Chandler, a participant in Halifax County, inspecting yellow zinnias. The only crops grown from seed in the project were zinnias and sunflowers.

In May of 2007, I delivered flats of achillea, German statice, tall phlox, rudbeckia, annual statice, celosia, ageratum and lisianthus to each participant in the program. At a couple of the farms, I noticed that the flats of plants I had delivered one month earlier were still in the cell flats and had not been planted. I certainly did not berate the farmers for this. They experienced the time crunch that comes during spring planting. Several of the beginning growers said that they had no idea how much work it was to set out a flat of 72 transplants. They did not realize that the planting would be so slow and tedious. Two of the growers actually dropped out of the program. They said that they did not have time to do a good job with everything else they had to take care of.

Setting out cut flower transplants in the field by hand is slow and tedious labor.

Marketing Attempts

The most challenging element of this project, for most of the growers, came on the day they first ventured out to sell their cut flowers for the first time. One young man told me that he bought Mason jars to use as vases for country bouquets which he sold for $15.00 each at a local farmers market. He also had a big bucket of sunflowers and another bucket of gladiolas that he priced at $1.50 per stem. On his first day at the market, he earned $183.00. That one day of success gave him a strong new sense of confidence in selling his cut flowers. One of the growers operates a roadside vegetable stand in a rural county. She said that the local people do not buy her flowers although she sells them plenty of vegetables. She said that she can sell every stem she carries up to a farmers market near

Arlington. The single most important truth about marketing cut flowers is that the demand is strong in large urban areas and weak in sparsely populated, rural areas.

These new growers have all learned about harvesting cut flowers at the best stage for marketing. They have learned about post-harvest handling to increase the vase life of their crops. There is nothing like actual selling to determine the preferences of customers and price sensitivity.

Field Meetings

In July of 2007 educational field meetings were held in Westmoreland County, in Halifax County, in King and Queen County and in Sussex County. The growers who had time to carefully tend their flower crops were glad to have a public meeting to show off their crops. The meetings which are highly advertised provide excellent sales promotion. The growers seem to enjoy describing their experience as a new cut flower producer. Audiences at these meetings have ranged from 11 persons in Westmoreland County to 120 persons in King and Queen County. Either two or three more field meetings will be held in other locations in August of 2007.

What Remains To Be Done

Many things can and should be done to increase the commercial production of fresh cut flowers in Virginia. Beginning and experienced growers need assistance in identification and control of insects and diseases. Our Virginia growers have little support in this area. Performance trials for cut flower varieties could be conducted at horticulture research stations in Virginia as they are in other states like North Carolina. The economic costs and returns of growing and selling the specific cut flower species have not been well documented. Farmers always appreciate financial budgets for crops they might try to grow. There is very little data available in Virginia concerning market demand and prices paid for fresh cut flowers. Test marketing programs would be of great value to Virginia growers.

For Virginia to really become a cut flowers state, we will have to develop off-season production. The greatest demand for cut flowers comes in the cold months when flowers are not blooming outside. The highest prices of the year are paid in February before Valentine’s Day. This is also the time of the year when the greatest volume of cut flowers is purchased by consumers.

Participating Growers and Extension Agents

Rockingham County - The demonstration is planted at Spotswood High School near Harrisonburg. The local Vocational Agriculture Teacher is Rebecca Holloway at 540-289-3100. The local Extension Agent is Maria Ignosh at 540-564-3080.

Halifax County - Demonstrators are Mark and Lona Chandler,
1151 Dryburg Road, Scottsburg, VA 24589 phone 804-454-7876
Local Extension support from Cliff Somerville at 434-572-6524 and William McCaleb at 434-476-2147

Sussex County - Demonstrators are Bobby and Brenda Morris
34220 Walnut Hill Road, Waverly, VA 23890 phone 804-834-2137
Local Extension support from Kelvin Wells at 434-246-5511.

Clarke County - Demonstrator is Eric Keene
773 Old Winchester Road, Boyce, VA 22620 phone 540-247-8358
Local Extension support from Josh Marvel at 540-665-5699.

Fluvanna County - Demonstrators are Michael and Michelle Maggiore
1193 Beal's Lane, Scottsville, VA 24590 phone: 434-286-3750
Local Extension support from Scott Byars at 434-591-1950.

Henry County - Demonstrator is Lillian Holland
2683 J. S. Holland Road, Ridgeway, VA 24148 phone: 434-432-2761
Local Extension support from Melanie Barrow at 276-634-4650.

Loudoun County - Two demonstrators are:
Barbara Lamborne
38223 John Wolford Road, Purcellville, VA 20132
phone: 540-882-4408 and
Eric Deaver, 17624 Evers Court, Hamilton, VA 20158
phone: 540-338-2771.
Local Extension support from Leslie Blischak at 703-777-0373.

Hanover County - Demonstrator is Brian Watson
His mailing address in Louisa County is 16066 Hopeful Church Road, Bumpass, VA 23024 phone: 804-301-5845
Local Extension support from Pattie Bland at 804-752-4310.

Virginia Beach - Demonstrator is Jeannie Flanagan
1880 North Muddy Creek Road, Virginia Beach, Virginia 23456
phone: 757-426-5585.
Local Extension support from Cal Schiemann at 757-427-4769.

Westmoreland County - Demonstrators are Dana and Bernard Boyle
507 Piney Grove Road, Warsaw, VA 22572 phone: 804-761-2412
Local Extension support from Sam Johnson at 804-493-8924.

Gloucester County - Demonstrators are Robert and Mary Countiss
10250 Burkes Pond Road, North, VA 23128 phone: 804-695-1251
Local Extension support from Megan Gardner at 804-758-4120.

King and Queen County - Demonstrators are Charlie and Miriam Maloney, 942 Buena Vista Road, Cologne, VA 23181 ph: 804-785-9401
Local Extension support from Megan Gardner at 804-758-4120.